

HTB11FFi
540 Line Color Bullet Camera
Intensifier Series, Focus Free
Wall & Ceiling Mountable



Please read this manual thoroughly before operation and keep it handy for further reference.

WARNING & CAUTION



CAUTION



CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.



The lightning flash with an arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance

INFORMATION -This equipment has been tested and found to comply with limits for a class A digital device Pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING – Change or modification not expressly approved by the manufacturer could void the user's authority to operate the equipment

CAUTION : To prevent electric shock and risk of fire hazards.

DO NOT use power sources other than that specified.

DO NOT expose this appliance to rain or moisture.

This installation should be made by a qualified service person and should conform to all local codes.

● Contents

Package Contents	3
Precautions	4
Camera Installation	5~7
Features	8~9
OSD Setting	10~15
Troubleshooting	16~17
Specification	18
Dimension	19
Warranty	20

PACKAGE CONTENTS

- **Please make sure that the following items are included in the package:**

1 HTB11FFi Camera

4 Mounting Screws

1 Video Test Cable

Please leave this manual with the end-user for future reference.

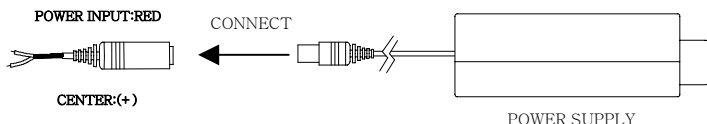
PRECAUTIONS

- **THIS DOME CAMERA SHOULD BE ONLY INSTALLED BY QUALIFIED PERSONNEL**
- **TO PREVENT A FIRE OR ELECTRICAL HAZARD PLEASE USE PROPER POWER CABLE**
- **DO NOT CLEAN THE COVER WITH AN ABRASIVE CLEANING MATERIAL - PLEASE USE A SOFT CLOTH OR TISSUE TO CLEAN THE COVER**
- **THERE ARE NO USER-SERVICEABLE PARTS INSIDE. PLEASE DO NOT DISASSEMBLE THIS CAMERA OTHER THAN TO MAKE INITIAL ADJUSTMENTS**
- **PLEASE USE A UL APPROVED REGULATED 24 VOLT AC OR 12 VOLT DC POWER SUPPLY**
- **PLEASE USE APPROPRIATE LOW VOLTAGE POWER CABLE TO PREVENT FIRE OR ELECTRICAL SHOCK**
- **PLEASE INSURE THAT YOUR INSTALLATION AREA CAN SUPPORT THE WEIGHT OF THE CAMERA**
- **PLEASE HANDLE THIS CAMERA CAREFULLY:**
 - **DON'T USE A STRONG OR ABRASIVE DETERGENT WHEN CLEANING THE CAMERA.**
 - **DON'T EXPOSE THE CAMERA TO DIRECT SUN**

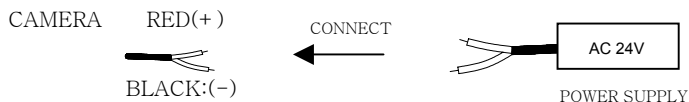
CAMERA INSTALLATION

1. CONNECT POWER CABLE

- 1) WHEN USING 12 VOLTS DC (constant voltage 600 mA)**
-CONNECT ACCESSORY CABLE TO THE CABLE LEAD OF THE CAMERA AND CONNECT 12V DC POWER SUPPLY.



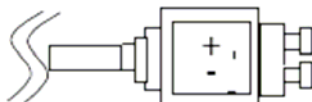
- 2) WHEN USING 24 VOLTS AC (40 Volt Amps)**



- 3) CONNECT VIDEO CABLE**
-CONNECT BNC CABLE TO THE BNC JACK.



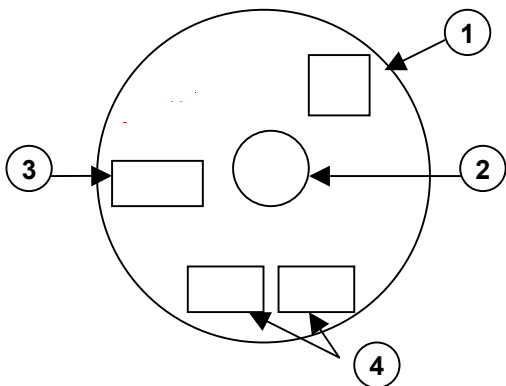
- 4) CONNECT RS-485 CABLE (Optional)**
-CONNECT 2WIRE CABLE TO THE 485PORT AS BELOW.



CONTROL CABLE	SPEC
TRX+	RS-485+
TRX-	RS-485-

CAMERA INSTALLATION

2. CONTROL BOARD



1) Video Test Terminal

: For second video output

2) OSD (On Screen Display) Joy stick

: Press the Joy stick for one second until the OSD menu tree appears on the screen. Move the Joy Stick up, down, left & right to control the OSD functions.

3) DIP Switch setting for RS485 (Pelco-D)

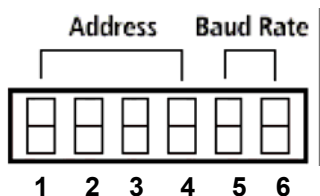
: Please see the next page for controlling this switch.

4) Lens adjustment (for Zoom) Switches

: Press Zoom or Tele button when desired, Focus is automatically matched without any adjustment.

CAMERA INSTALLATION

3. DIP Switch Setting for RS-485 (Pelco-D)



1) Address Setting

: to set Camera Address, place switches based on below chart.

Address	SW 1	SW 2	SW 3	SW 4
01	ON	ON	ON	OFF
02	ON	ON	OFF	ON
03	ON	ON	OFF	OFF
04	ON	OFF	ON	ON
05	ON	OFF	ON	OFF
06	ON	OFF	OFF	ON
07	ON	OFF	OFF	OFF
08	OFF	ON	ON	ON
09	OFF	ON	ON	OFF
10	OFF	ON	OFF	ON
11	OFF	ON	OFF	OFF
12	OFF	OFF	ON	ON
13	OFF	OFF	ON	OFF
14	OFF	OFF	OFF	ON
15	OFF	OFF	OFF	OFF

2) Baud rate Setting

: to set Baud rate, please refer the chart below.

Baudrate	SW 5	SW 6
2400	ON	ON
4800	ON	OFF
9600	OFF	ON
19200	OFF	OFF

● Features

SLC

When the image is in front of strong background lighting, your camera allows you to get a clear image.

INTENSIFIER

1/3 inch high-density CCD and digital processor permit high quality Pictures to be captured in very low light conditions.

High Resolution

Horizontal resolution of 540 TV lines is achieved by using a SONY Double Speed CCD with 410,000 pixels.

Motion Detection

Built in motion detector with adjustable areas of coverage will flash a warning on the screen when motion is detected.

OSD

All camera functions are menu driven for easy use.

Dynamic Noise Reduction

The Intensifier camera has a DSP chip that can remove image noise efficiently showing clean images in low light conditions.

ELECTRONIC DAY/NIGHT

The Intensifier camera can show color pictures in all lighting conditions, or you can have it automatically switch to a B/W picture in low light conditions

● Operating your camera

OSD Function

SETUP MENU

LENS TYPE

● DC IRIS

SHUTTER TYPE

● ELC ● FIXED ● MANUAL

WHITE BALANCE

● ATE ● AWC ● MANUAL

SLC

● HIGH ● MIDDLE ● LOW ● OFF

AUTO GAIN

● HIGH ● MIDDLE ● LOW ● OFF

REDUCE NOISE

● HIGH ● MIDDLE ● LOW ● OFF

INTENSIFIER

● AUTO ● OFF

NEXT PAGE

● CAMERA TITLE ● DAY/NIGHT ● SYNC
● MOTION ● PRIVACY ● REVERSE
● DETAIL ● DEFAULT ● PAGE1

EXIT

● **SETUP Menu Functions**

1. LENS (DC) – Lens is static with DC auto iris lens only

2. SHUTTER (Option : OFF / FLK / MANUAL/ ESC)

Flickerless mode (FLK) reduces on-screen flickering.

Electronic Shutter Control (ESC) adjusts brightness level on screen.

Manual mode allows you to adjust the shutter speed from 1/60~1/120,000 of a second (NTSC)

3. WHITE BAL. (Option : ATW / MANUAL / AWC)

Select Auto Tracking White Balance (ATW) when the color temp. is 2400°K~12000°K

Manual mode allows you to increase or decrease the red or blue factor on screen.

Auto White Balance Control (AWC) automatically adjusts the white balance to your specific environment.

4. SLC (Speco Light Compensation) - BACKLIGHT

It provides intelligent light level control to overcome severe Backlight conditions by Low, Middle & High level control.

5. Auto Gain (Low / Middle / High)

Increase the GAIN level to brighten the picture.
(noise / distortion may develop)

6. REDUCE NOISE (Low / Middle / High)

Reduces noise/distortion on the screen, Increasing the REDUCE NOISE level reduces noise but may introduce video Artifacts, it is deactivated if AGC is turned off.

7. INTENSIFIER

Automatically provides a clear image under low-light conditions. You can control the maximum low-light magnification from 2x to 128x. It is deactivated when SHUTTER is set to FLK mode.

8. NEXT PAGE

Takes you to the special functions.

9. EXIT

Exits the SETUP menu and returns to video monitoring.

● NEXT PAGE Menu Functions

1. CAMERA ID



UP, DOWN, LEFT, RIGHT menu control = Select a character, then press (SETUP)MENU to accept it.
The character is saved and the title cursor at the bottom of the screen moves to the next position.

← → = Go back or forward in the title name to make changes.

CLR = Delete the entire name and start again.

POS = Position the camera title on the screen.

Press (SETUP)MENU to confirm the position.

END = Accept the new name.

2. COLOR (Auto / On)

Sets the camera to either automatic color/black and white or full-time color mode.

* Auto : The camera will switch into B/W mode under low light conditions.

* Color : Always display a color picture.

**OSD Key may not work for 3 seconds when the COLOR/
BW mode is changed**

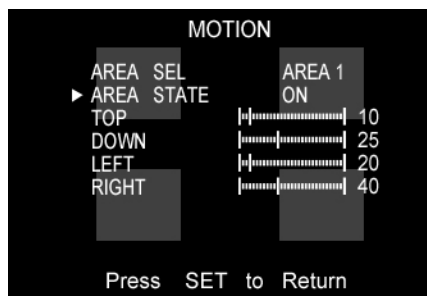
3. SYNC (INT / Line Lock)

INT : When line lock is not required.

It synchronizes the vertical interval sync pulse of your camera with other equipment to reduce the effect of picture roll on the monitor.

L/L : Adjust the vertical phase (VPH) from 000 ~ 359
Line Lock is only available with 24VAC power.

4. MOTION



Detects moving objects on screen and displays MOTION DETECTED along with the number of movements counted. Allows you to select the area on screen you want to observe.

AREA SEL = Select a motion detection grid (top left, top right, bottom left, bottom right) to modify.

AREA STATE = Activate or deactivate the selected grid.

TOP/DOWN/ = Press LEFT or RIGHT menu control left or
LEFT/RIGHT right to alter the dimensions of the selected grid.

5. PRIVACY

Allows you to mask certain areas of the screen from observation

AREA SEL = Select a motion detection grid (top left, top right, bottom left, bottom right) to modify.

AREA STATE = Activate or deactivate the selected grid.

TOP/DOWN/ = Press LEFT or RIGHT menu control left or LEFT/RIGHT right to alter the dimensions of the selected grid.

6. MIRROR

Produces a horizontal mirror image on screen.

7. SHARPNESS

Sharpens the image on screen. You can adjust the sharpness Level from 0~31 (excessive sharpening may cause picture noise to develop).

8. RESET

Restores all factory default settings.

9. RETURN

Returns to the main SETUP menu.

● Troubleshooting

If you have trouble operating your camera, refer to the following

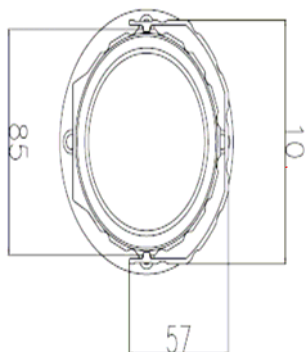
Problem	Solution
Nothing appears on the screen.	<ul style="list-style-type: none">● Check that the power cord and line connection between the camera and monitor are proper● Check that you have properly connected VIDEO cable the camera VIDEO output jack.
The image on the screen is dim.	<ul style="list-style-type: none">● Is lens stained with dirt? Clean your lens with soft, clean cloth.● Set the monitor to proper condition.● If the camera is exposed to too strong light change the camera position.
The image on the screen is dark.	<ul style="list-style-type: none">● Adjust the lens' focus properly.● Adjust the contrast feature of the monitor.● If you have an intermediate device, set the 75Ω/Hi-z properly.
The camera is not working properly, and the surface of the camera is not.	<ul style="list-style-type: none">● Check that you have properly connected the camera to an appropriate power source.
MOTION DETECTION function is not active.	<ul style="list-style-type: none">● Have you set 'MOTION DET.' menu to off?● Have you set 'MD LEVEL' to too how?● Have you set 'MD ARAEA' properly

SPECIFICATIONS

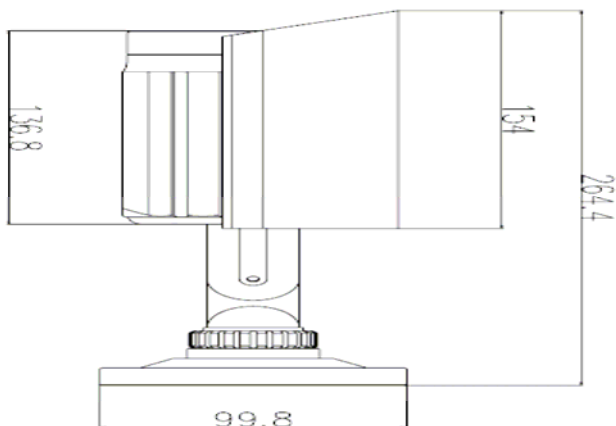
ITEM	HTB11FFi
Power Source	12VDC & 24VAC (Dual Voltage)
Power Consumption	500mA (DC) / 6.6W (AC)
Image Sensor	1/3", SONY SUPER HAD CCD, 410,000 pixels
Total Pixels	811(H) x 508(V) , 1/3" CCD
Effective Pixels	768(H) x 494(V) , 1/3" CCD
LENS TYPE	Focus Free Lens 3.5~10mm
Maximum Aperture Ratio	1 : 1.3 ~2.0
Scanning System	2 : 1 Interlaced 525 Lines / 60 Fields / 30 Frames
Synchronization	Internal / Line Lock selectable
Video Output	1.0V [p-p] Composite, 75Ω
Resolution	540 TV Line
Gain Control	AGC-L, AGC-M, AGC-H, OFF selectable
Electric Shutter Speed	1/60 ~ 1/200,000 sec
INTENSIFIER	Built-in (selectable limit ~ X128)
WHITE BALANCE	W-ATW / S-ATW / AWC /MANUAL
Min. Illumination	0.002Lux (intensifier) 0.3Lux (shutter)
S/N (Y signal)	50dB (Weight On)
Reduction Noise	OFF / LOW / MIDDLE / HIGH
Motion Detection	MD1 / MD2 / OFF
On Screen Display (O.S.D)	Built – in
PRIVACY Function	ON / OFF (4 Programmable Zone)
Operational Temperature	-29℃ ~ +50℃ (- 20°F ~122°F)
Operational Humidity	30% ~90% RH

DIMENSIONS

* FRONT VIEW



* SIDE VIEW



WARRANTY



LIMITED WARRANTY

THIS WARRANTY IS VALID ONLY ON PRODUCTS PURCHASED AND USED IN THE UNITED STATES OF AMERICA. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL USER.

SUBJECT TO CONDITIONS AND EXCLUSIONS FOUND BELOW, THIS PRODUCT IS WARRANTED AGAINST MANUFACTURING DEFECTS IN MATERIAL AND WORKMANSHIP FOR THE FOLLOWING PERIOD FOR PARTS AND LABOR:

SPECO TECHNOLOGIES CAMERAS:	5 YEARS
SPECO TECHNOLOGIES MONITORS:	1 YEAR
BALANCE OF SPECO TECHNOLOGIES LINE:	1 YEAR*
* IR LEDs, Time lapse VCR Drum Assemblies & Heads:	90-DAYS

SPECO TECHNOLOGIES WILL REPAIR OR REPLACE (AT OUR DISCRETION) ANY PARTS FOUND TO BE DEFECTIVE FOR THE WARRANTY PERIOD SPECIFIED. WE WILL PROVIDE A REPLACEMENT FOR ANY DEFECTIVE PART.

CONDITIONS

1. YOU MUST OBTAIN A RETURN AUTHORIZATION NUMBER FOR ANY MERCHANDISE BEING RETURNED TO SPECO TECHNOLOGIES, WHETHER FOR RETURN/EXCHANGE OR REPAIR, WHETHER IN OR OUT OF WARRANTY.

2. THIS WARRANTY WILL BE HONORED ONLY UPON PRESENTATION OF THE ORIGINAL DATED BILL OF SALE OR SALES SLIP.

3. TRANSPORTATION OF THE PRODUCT TO OUR SERVICE DEPARTMENT IS THE RESPONSIBILITY OF THE USER. REPAIRED OR REPLACED PRODUCT WILL BE RETURNED PREPAID DURING THE WARRANTY PERIOD.

EXCLUSIONS

1. THIS WARRANTY SHALL NOT COVER ADJUSTMENT OF CUSTOMER OPERATED CONTROLS AS EXPLAINED IN THE APPROPRIATE MODEL'S INSTRUCTION MANUAL OR PRODUCTS WHICH HAVE BEEN ALTERED, ABUSED, OR HAVE MISSING OR ALTERED SERIAL NUMBERS.

2. THIS WARRANTY SHALL NOT APPLY TO UNCRATING, SETUP, INSTALLATION, OR THE REMOVAL AND REINSTALLATION OF PRODUCTS AFTER REPAIR.

3. THIS WARRANTY SHALL NOT APPLY TO REPAIRS OR REPLACEMENTS NECESSITATED BY ANY CAUSE BEYOND THE RESULT OF MANUFACTURE INCLUDING, BUT NOT LIMITED TO, ANY MALFUNCTION, DEFECTS OR FAILURE CAUSED BY OR RESULTING FROM UNAUTHORIZED SERVICE OR PARTS, IMPROPER MAINTENANCE, MODIFICATION OR REPAIR BY THE USER, ABUSE, MISUSE, NEGLIGENCE, ACCIDENT, FIRE, FLOOD, OR OTHER ACTS OF NATURE, INCORRECT LINE VOLTAGE, DAMAGE OR IMAGE BURNS TO TELEVISION PICTURE TUBES CAUSED BY OR ATTRIBUTABLE TO THE USE OF ANY ACCESSORY, ELECTRONICS GAME OR DEVICE, OR DAMAGE CAUSED TO IMAGE PICKUP DEVICES BY EXCESSIVE LIGHT.

THE FOREGOING IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES AND WE DO NOT AUTHORIZE ANY PARTY TO ASSUME FOR US ANY OTHER OBLIGATION OR LIABILITY. IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS PRODUCT, OR FOR ANY DELAY IN THE USE OF THIS PRODUCT DUE TO CAUSES BEYOND OUR CONTROL.

SOME STATES DO NOT ALLOW LIMITATIONS OF HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL DAMAGES. THE ABOVE LIMITATIONS ON IMPLIED WARRANTY AND CONSEQUENTIAL DAMAGES MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

NOTE: FOR YOUR PROTECTION IN THE EVENT OF THEFT OR LOSS OF THIS PRODUCT, PLEASE FILL IN THE INFORMATION REQUESTED BELOW AND RETAIN WITH YOUR SALES RECEIPT.

MODEL NO.: _____ SERIAL NO.: _____
(LOCATED ON BACK OR BOTTOM OF UNIT)

DATE OF PURCHASE: _____

WHERE PURCHASED: _____ PURCHASE PRICE: _____

Speco Technologies
200 NEW HIGHWAY
AMITYVILLE, NY 11701 www.specotech.com

FOR MORE INFORMATION REGARDING
SERVICE OR RETURN, CALL US
TOLL FREE: 1-800-645-5516 IN METRO NY: 631-957-8700

ALWAYS USE DISCRETION WHEN INSTALLING VIDEO AND/OR AUDIO SURVEILLANCE EQUIPMENT ESPECIALLY WHEN THERE IS AN EXPECTATION OF PRIVACY. INQUIRE REGARDING FEDERAL, STATE AND/OR LOCAL REGULATIONS APPLICABLE TO THE LAWFUL INSTALLATION OF VIDEO AND/OR AUDIO RECORDING OR SURVEILLANCE EQUIPMENT. PARTY CONSENT MAY BE REQUIRED.

● MEMO

● MEMO



**200 New Highway
Amityville, NY 11701
631-957-8700
www.specotech.com**

VER. 080901

This manual is based on the date as shown in the right and specifications are subject to Change without notice for quality improvement.